

(b) has the ability to inhibit the cytotoxic effect of TNF.

--53. A replicable expression vehicle comprising the DNA molecule of claim 52 and capable, in a transformant host cell, of expressing said protein.

--54. A host cell selected from the group consisting of a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 53.

--55. A process for producing a protein having the amino acid sequence of TNF Binding Protein TBP-II, comprising the steps of: (a) culturing a transformant host cell according to claim 54 in a suitable culture medium and (b) isolating said protein.

--56. An isolated DNA molecule in accordance with claim 52, comprising the nucleotide sequence coding for a naturally occurring human Tumor Necrosis Factor (TNF) binding protein (TBP-II) having the following characteristics:

- i. includes the amino acid sequence Thr-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr in the portion of the protein sequenced by N-terminal sequence analysis; and
- ii. the ability to inhibit the cytotoxic effect of TNF- α on murine A9 cells.

--57. A replicable expression vehicle comprising the DNA molecule of claim 56 and capable, in a transformant host cell, of expressing said protein.

--58. A host cell selected from the group consisting of a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 57.

--59. An isolated DNA molecule comprising the nucleotide sequence coding for a naturally occurring human Tumor Necrosis Factor (TNF) binding protein (TBP-II) having the following characteristics:

- i. includes the amino acid sequence Thr-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr in the portion of the protein sequenced by N-terminal sequence analysis; and
- ii. the ability to inhibit the cytotoxic effect of TNF- α on murine A9 cells; and
- iii. a molecular weight of about 30kd in reducing SDS-PAGE analysis.

--60. A replicable expression vehicle comprising the DNA molecule of claim 59 and capable, in a transformant host cell, of expressing said protein.

--61. A host cell selected from the group consisting of a prokaryotic and a eukaryotic cell transformed with the replicable expression vehicle of claim 60.

--62. A process for producing a protein having the amino acid sequence of an active fragment of TBP-II, comprising the steps of: (a) culturing a transformant host cell according to claim 61 in a suitable culture medium, and (b) isolating said protein.

--63. An isolated DNA molecule comprising a sequence encoding a fraction of a naturally-occurring human tumor necrosis factor (TNF) binding protein (TBP-II) having the following the following characteristics:

- (a) includes the amino acid sequence Thr-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr in the portion of the protein sequenced by N-terminal sequence analysis; and
- (b) has the ability to inhibit the cytotoxic effect of TNF;

1
said sequence having a sufficient length to serve as an oligonucleotide probe.

--64. An isolated DNA molecule comprising a sequence encoding a fraction of a naturally-occurring human tumor necrosis factor (TNF) binding protein (TBP-II) having the following the following characteristics:

- (a) includes the amino acid sequence Thr-Pro-Tyr-Ala-Pro-Glu-Pro-Gly-Ser-Thr in the portion of the protein sequenced by N-terminal sequence analysis; and
- (b) has the ability to inhibit the cytotoxic effect of TNF;

1
said sequence being of a sufficient length to encode a fragment of TBP-II of sufficient length to serve as an immunogen for raising antibodies against TBP-II when fused to protein A.--